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Aqseptence Group

Combined Off-shore/On-shore Solution for Dilmunia Artificial Water Canal Project, Bahrain

Situation

An artificial Water Canal in the new residential area of Dilmunia should be served with water.
(Canal Data: 1.7 km long, 15-35 m wide).
The employer has been looking for reputed suppliers to equip this high-level real estate area.
Reliability, quality and low maintenance have been the key requirements for this project.
The design company has been working on this project demanded our support as a well-known high-quality manufacturer of screening equipment and solutions.



* Source: dilmunia.com

Customer

Local Real Estate Company

Commissioning

2022

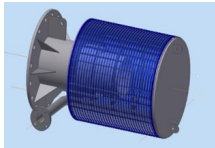
Challenge

Very fine filtration (0.5mm) required to reduce to the minimum the solid content in the canal water. Very limited space for the pump station – only 1 screening step onshore possible.

Solution

We identified the possibility to provide a “combined solution”, i.e. an off-shore intake with Johnson passive screens as first cleaning stage and on-shore fine travelling band screen as second stage. Passavant-Geiger as system supplier able to provide both technologies from one hand.

Technical Details



S-Type Johnson Screens
passive intake

JOIS™ “S” Type Passive Screens + Hydroburst system - first cleaning stage:

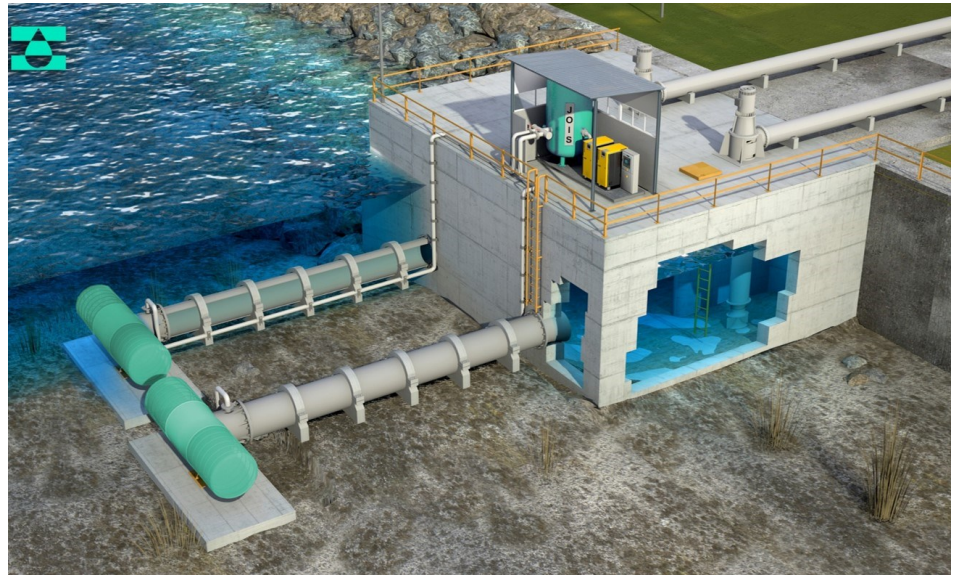
Slot opening: 5.0 mm
Material of Construction: Superduplex stainless steel

Geiger® Center-Flow Travelling Band Screen - second cleaning stage:

Mesh Opening: 0.5 mm mesh
Material of Construction: Superduplex stainless steel
Channel width: 4.50 m
Channel depth: 7.60 m
Flowrate: 3,600 m³/h



Center-Flow Travelling Band
Screen - second cleaning stage



JOIS Passive Screens + Hydroburst System - first cleaning stage

Advantages

- Ability to achieve very fine screening - 0.5mm - with only 2 cleaning steps
- Very limited footprint of the on-shore pump station, as it only includes the second cleaning step
- Full solution out of one hand for both off-shore and on-shore screening equipment
- “Passive” first cleaning step with original Johnson Screens , i.e. no moving parts in contact with seawater and little maintenance

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